



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

Northwest Region

2020 Southwest Fourth Avenue, Suite 400

Portland, OR 97201-4987

(503) 229-5263

FAX (503) 229-6945

TTY (503) 229-5471

11.3.41

March 20, 2002

Jimmy R. Stahly
General Manager
Linnton Plywood Association
10504 NW St. Helens Road
Portland, OR 97231

Re: Pre-Remedial Investigation Assessment Report for the
Linnton Plywood Association Facility in Portland, Oregon

ECSI No. 2373

Dear Mr. Stahly:

This letter concerns the *Pre-Remedial Investigation (RI) Assessment Report (February 2002)* for the Linnton Plywood Association (LPA) facility, prepared on your behalf by CH2M Hill.

The purpose of the Pre-RI Assessment was to evaluate past or present contaminant sources and pathways to determine whether the LPA facility represents a current source of contamination to the Willamette River. If historical information and the results of the Pre-RI Assessment Work Plan demonstrate that there is no likely present source and pathway for the release of hazardous substances to surface water or sediments, then the Department could consider not requiring further investigation under the June 5, 2000 Agreement between LPA and the DEQ.

The Pre-RI Assessment was not designed to characterize or determine the magnitude of these potential sources, nor was it designed to provide a comprehensive evaluation of human exposure at the facility because of the ongoing nature of site operations.

If data collected during the Pre-RI Assessment indicated that contaminants were present at concentrations above conservative screening levels developed for specific media and pathways of migration to the Portland Harbor, then LPA would be required to perform additional remedial investigation.

As described below, soil samples collected at Outfall 5 and sediment samples collected adjacent to Outfall 6 exceed sediment screening criteria. In addition, the lead concentration in groundwater down-gradient of the Maintenance Shop is greater than 100 times the Ambient Water Quality Criteria (AWQA) for chronic exposure in fresh water. Accordingly, the Department of Environmental Quality (DEQ) does not concur with the conclusions reached in the report, and has determined that additional investigation is warranted to determine if threats to human health and the environment exist at the site.

USEPA SF



1188573

Contaminant Screening

The approach used to compare the concentrations of contaminants identified in samples collected at the site to relevant screening values is inappropriate. The screening values used within the body of the text were developed to protect human health rather than ecological receptors and do not consider all potential pathways. For example, surface soil and catch basin sediment concentrations at the LPA site are compared to DEQ Soil Cleanup (OAR 340-122-045) values and polychlorinated biphenyl (PCB) Generic Remedy values, which are based on human health risks. The water quality permit discharge limits used to compare groundwater contaminant concentrations found at the site were developed for pipe discharges to water bodies with adequate mixing zones rather than seepage through a riparian zone along a riverbank. Therefore, the screening values referenced in the report are not relevant to the determination of potential impacts to surface water and sediments in the Portland Harbor.

The purpose of the Pre-RI Assessment was to determine if complete pathways exist at the facility which may contribute contaminants to the Portland Harbor. Screening criteria developed for pathways and ecological receptors which are representative of those in the Portland Harbor must be used to place the contaminants at the LPA facility in the proper context. Even though some of screening values discussed in the Conceptual Site Model presented in Figure 4 are exceeded, and the resulting evaluation of the pathway yields the conclusion that "the groundwater migration pathway for metal transport to the Willamette River is inconclusive" and is "potentially complete", this is not deemed a pathway that needs to be further evaluated within the body of the report.

The DEQ Level II Screening Level Values (SLVs) found in the December 2001 *Guidance for Ecological Risk Assessment* (<http://www.deq.state.or.us/wmc/documents/eco-2slv.pdf>) are more appropriate screening values to evaluate the significance of soil, sediment and groundwater contaminants which may be migrating to the Portland Harbor.

Analysis of Potentially Active Pathways

Metals concentrations (cadmium, chromium, copper and lead) detected in catch basin and outfall sediments clearly exceed the freshwater sediment screening criteria. The PCB concentrations in some catch basin sediments approach the SLVs. Although no screening values exist at present for gross petroleum hydrocarbon contamination in sediments, the presence of up to 2,000 mg/kg of petroleum hydrocarbons in soils and sediments adjacent to the harbor warrant further evaluation. The detection limits for polycyclic aromatic hydrocarbons (PAHs) in the samples with elevated petroleum hydrocarbon concentrations are above their respective SLVs.

Sediment at Outfall 6 had concentrations of PAHs that exceeded SLVs by several orders of magnitude. Phthalate concentrations also exceed the SLVs in some samples. Although the volatile organic compound concentrations found in sediment and soil samples do not exceed the SLVs or the Environmental Protection Agency (EPA) Region IX Preliminary Remediation Goals (PRGs) for industrial exposure scenarios, the nature and extent of source of these compounds needs to be investigated.



The argument that sediment concentrations at Outfall 6 may be impacted by migration of sediments within the Portland Harbor, supported by the concentrations found in samples collected during initial characterization of the harbor, ignores the physical setting in which the Outfall 6 sample was collected and the physical composition of the sample itself. The sample was collected from an area of deposition immediately down-gradient of the outfall, well above the general high water line of the river, and was easily distinguishable from surrounding bank sediments and the sediments further downstream of the outfall due to its color and extremely fine-grained nature. This sample represents a discretely separate waste product (possibly ash) which originated from the outfall, and which happens to have elevated metals and PAHs above both SLVs and the mean concentrations in the Portland Harbor. Further, these concentrations are above the shallow sediment samples collected 100 and 1000 feet up-gradient of the outfall (SD-030 & SD-035A by Weston in 1997 under contract to the EPA). As the nature of this waste is yet to be determined, it is premature to rule it out as a contaminant of concern at the site. Both the waste product found at the outfall, and the source of the product needs to be fully evaluated in the remedial investigation of the LPA facility.

Groundwater samples collected exceeded freshwater aquatic SLVs for copper, lead and phthalates, and approached the SLVs for chromium. As a result, these metals cannot be ruled out as contaminants of concern by the Pre-RI Assessment data. The sources of metal contamination need to be evaluated, and the magnitude and extent of the impacts need to be delineated during the remedial investigation of the facility. If the samples were extremely turbid, more appropriate sampling methodologies should be considered in future sampling efforts.

The cessation of plant operations may eliminate some potential sources of contamination. However, the shut down may exacerbate some contaminant sources or even create new sources. The dismantling of machinery or removal of buildings or structures are key among the potential sources of contaminants which could be created through plant shut down. Several potential source areas were not investigated as potential sources because they were within the building footprints. These potential sources were deemed to have a low potential to contribute to the Portland Harbor because they were covered and contained by the roof and foundation of the buildings. The closure of the facility needs to be evaluated to determine which potential sources might become active due to changes in operation or the dismantling of buildings, equipment, or other changes in operations. Further, the potential redevelopment and re-use of the property should be evaluated prior to initiating activities to determine their potential to cause exposure of site workers to contaminants, and the migration of contaminants to the Portland Harbor.

Incidental Items

The report prepared by CH2M Hill is not signed by the author(s), nor are the person(s) performing the site investigation identified. No copies of the field and boring logs used to identify samples collected for analysis were included. These notes should detail changes in sample locations, specify sampling procedures and departures from the Pre-RI Work Plan. As the field investigation relied heavily on the interpretation of soil zones and the occurrence of saturated zones, the Oregon-Registered Geologist responsible for conducting the investigation should sign and stamp the document.



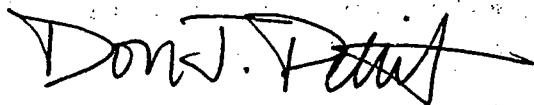
Next Steps

Please submit a copy of the field and boring logs for the October 2001 field investigation, and a signature page for insertion into the current document which identifies the author(s), the persons conducting the field portions of the investigation, and the Oregon-Registered Geologist or Engineer responsible for conducting the investigation. Also, please provide a description of site activities which have take place since the cessation of plant operations and any activities which are planned for the next six months. Please submit these items by April 1, 2002.

LPA should begin preparation of a Remedial Investigation Proposal to characterize the magnitude and extent of contaminant sources identified in the Pre-RI Assessment, complete the investigation of potential sources which were not completed during the Pre-RI Assessment due to low groundwater yield, and which identifies potential new sources which could result from the shut down of the LPA facility. The RI Proposal should be submitted by April 26, 2002.

Please contact me at (503) 229-5492 if you wish to discuss this letter, the scope of the required investigation or the preparation of the RI Proposal.

Sincerely,



Don J. Pettit
Project Manager
Cleanup & Portland Harbor

Cc: Jeff Gentry - CH2M Hill/PDX
Natalie Young Pong - CH2M Hill/PDX
John DeVoe - Dunn & Carney
Eric Blischke - DEQ/NWR/VC-PH
Alicia Voss - DEQ/NWR/VC-PH
Tom Gainer - DEQ/NWR

